

ABSTRACT OF THE DISCLOSURE

A compressor includes a motor protector which stops the compressor motor when it senses an out of specification condition. A diagnostic system monitors the status of the motor protector and includes logic circuitry that diagnoses the type of problem the compressor or the system is having based upon the running times and status of the motor in conjunction with the times and status of the tripped motor protector. The diagnostic system also includes either a discharge pressure sensor or a condenser temperature sensor, an ambient air sensor and a voltage sensor. The sensors provide information to the diagnostic system, which enable it to determine where a system fault has occurred.